Chapter 19

Editing Graphics

Introduction

The OWS can provide information on the entire facility in both textual and graphical formats. A System summary displays an air handling unit as a textual list of objects. A system drawing displays the same system with graphical symbols representing the objects.

This section discusses system drawings and provides some examples of drawings created with Micrografx Designer™ software. The chapter assumes the reader knows how to use Designer or DRAW software to create system drawings. While drawing procedures in Micrografx Designer and Micrografx® DRAW are similar, refer to the appropriate manual for detailed instructions.

Designer and DRAW are no longer supported at Metasys Release 11.00. Thus, you cannot create new graphics for the OWS with these programs. This chapter only describes how to modify drawings that already exist.

This chapter describes how to:

- access Designer/DRAW
- unbind objects and symbols
- bind symbols and objects
- set colors for a symbol
- modify a bound symbol
- delete a bound symbol
- modify slide show settings

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Code No. LIT-120161

Key Concepts

Graphic Binding

All graphics symbols are bound, or associated, to certain objects in the system. The graphic symbol indicates dynamic data about its associated object.

Each symbol can also display certain information, such as the object's Focus window, when the user double-clicks the symbol.

Designer can modify a bound symbol without destroying its binding if it is given the same Symbol ID. If the symbol is a combination of drawing elements, use Designer to break it apart, modify it, and recombine it. You can also use this process to change the location of Metasys text associated with an object.

Change the binding associations of symbols and objects in the displayed graphics by unbinding the symbol from an object and rebinding it to a new one. See *Detailed Procedures* for further instructions.

Alarm Flashing

An object symbol can be made to flash when it goes into certain alarm states. The color of the object alternates between its static and alarm state colors. This feature is turned on by setting three parameters in the METASYS.INI file. Refer to the *Initialization Parameters Technical Bulletin (LIT-636345)* for details.

Note: If the flashing interval is set too low and there are many flashing objects within the drawing, the operation of the system may slow down. A flashing interval of less than 0.5 second is not recommended.

Setting Colors

The OWS indicates changes-of-state in an object by changing the color of the object and its associated text within the dynamic drawing.

The OWS provides default colors for each state that an object can experience. To change the color settings, click Set Colors/Test on the Binding Editor Action menu.

Default colors are described in the *Graphics Technical Bulletin (LIT-636108)*.

Slide Show

The slide show is a series of images that appears on the OWS screen when no one is logged on. The images can include a company logo, floor plans, or the dynamic drawings that represent the PC groups and systems within the facility. Each image remains on the screen for a defined time period before the slide show cycles to the next image.

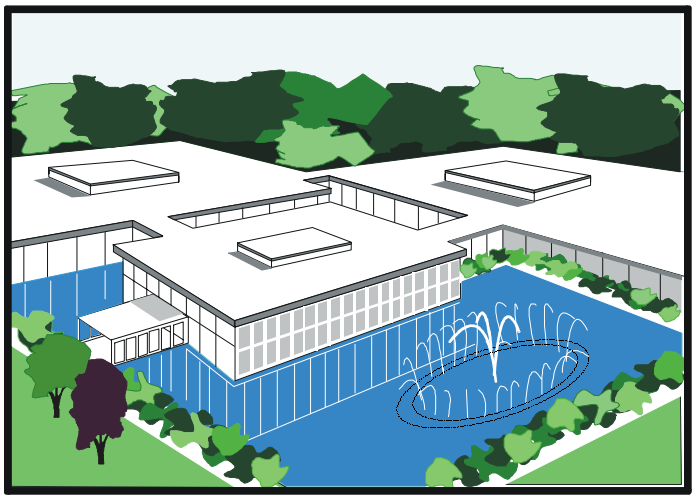

FIG102

Figure 19-1: Example Slide Show Image

Slide show images can be pictures drawn with Micrografx Designer (including the same drawings that represent the actual PC groups and systems in the facility software), or the default drawings provided with the OWS. If the facility software drawings are dynamic drawings, the slide show displays the current values and changes-of-state for the objects in the drawings.

Specify the slide show parameters in the SLIDES.TXT file. To add or delete drawings, or to change the number of seconds that a drawing remains on the screen, simply edit the SLIDES.TXT file in any text editor.

Figure 19-2 is an example of a SLIDES.TXT file displayed in Notepad.

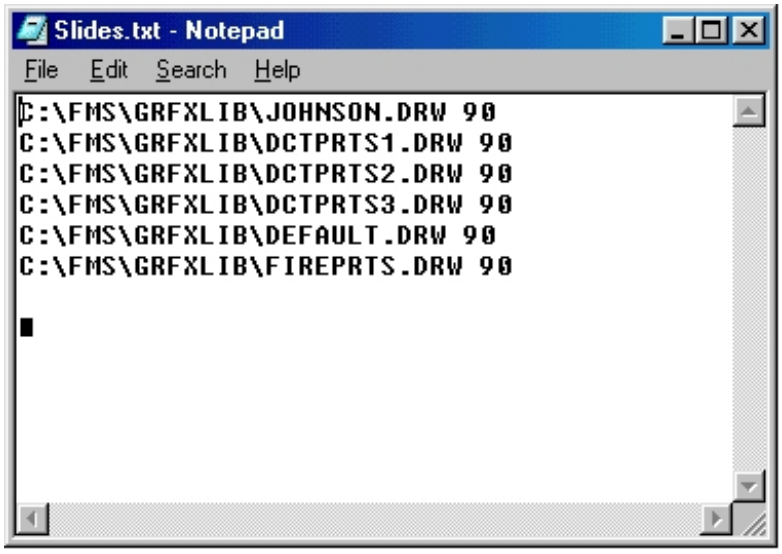

Figure 19-2: Example of SLIDES.TXT File in Notepad

Detailed Procedures

Accessing Designer or DRAW

Program Manager Method

To access Designer or DRAW:

1. On the Exit menu, click Program Manager. A dialog box appears asking if the BAS should continue to run.
2. Click Yes or No.
3. Double-click the Designer/Draw icon.
4. When finished, exit and double-click the Metasys icon to return to the Metasys program.

Designer Method

Note: To access Designer using the Exit Menu described below, set Designer = Yes in the Metasys section of the METASYS.INI file. (This is the default, if Designer was installed before Metasys.)

To access Designer:

1. On the Exit menu, click Designer. A dialog box appears asking if the BAS should continue to run.
2. Click Yes. The Network Map becomes an icon in the lower portion of the screen and Designer opens.
3. When finished, close Designer. Click on the Network Map icon. The Network Map appears.

Unbinding Objects and Symbols

To unbind an object and a symbol:

1. Display the system with the object.
2. On the Action menu, click Graphic Binding. The Binding Editor appears.
3. Select the object. Handles appear around the selected object.
4. On the Action menu, click Unbind. The binding between the object and the object symbol is deleted. The object symbol remains in the drawing as a static element.
5. After unbinding the object, click Save on the item menu.

Binding Symbols and Objects

To bind a symbol to an object:

1. From the Stair Step in the PC Group summary (see Figure 19-3), select the system that contains the objects.

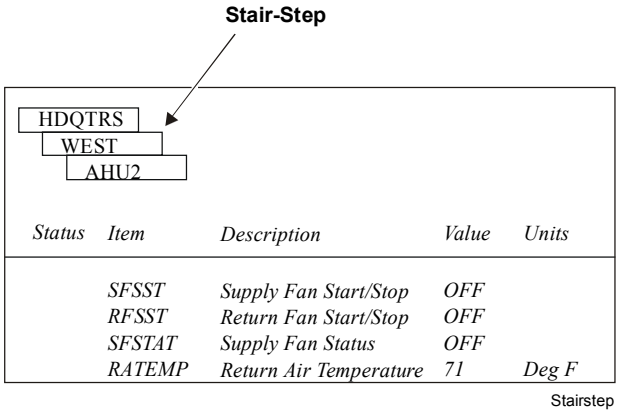

Figure 19-3: Stair Steps in a Summary

2. On the Action menu, click Graphic Binding. The Binding Editor dialog box appears (Figure 19-4).

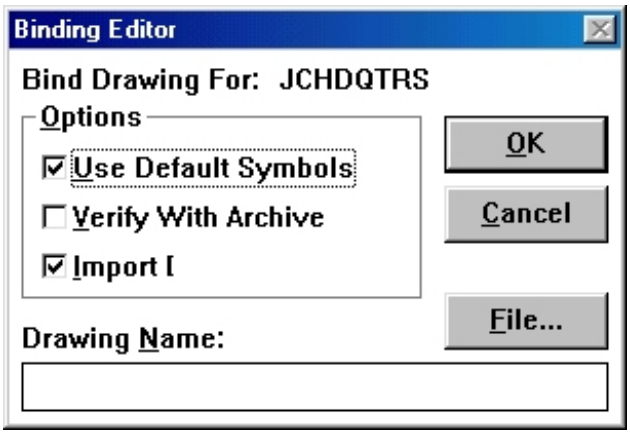

Figure 19-4: Binding Editor Dialog Box

3. Choose the options in the Binding Editor dialog box.

   Use default symbols: This selection is the default if no drawing exists in the selected system's directory. It imports all of the symbols that have been defined in object Definition or Focus windows. **Once the symbols are imported, they will need editing.**

   Verify with archive: To bind symbols offline rather than online, select this option. (CS objects must be bound online.) When selected, an X appears in the box. To use this option, the PC must have a copy of the archive database on its hard drive.

   Import drawing: This option is only available if there is no drawing in the selected system's directory. If a drawing exists, delete it before selecting this option, or use DOS copy command or the Windows File Manager to copy over the existing drawing.

4. Click OK. The program is now in Binding Editor mode and the system drawing appears.
5. Select a symbol to bind to an object. Handles appear around the selected symbol.
6. Either double-click the object, or click Bind on the Action menu. The Bind dialog box appears (Figure 19-5).

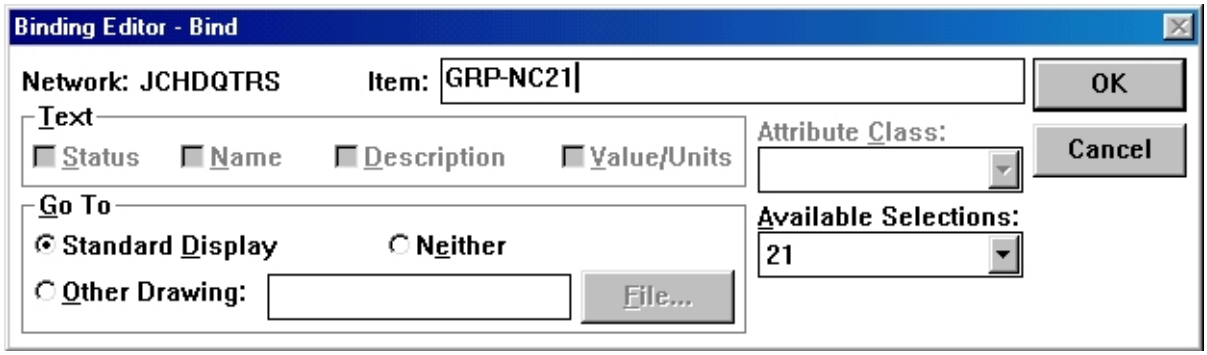

Figure 19-5: Bind Dialog Box

7. Type the object name of the object in the Item text box (the Group\System name is already entered).

   The Available Selections list box lists the names of all items available for the PC group/system in the next sublevel. For example, if there is no valid item specified in the Item text box or this box is empty, a list of all PC groups and systems defined under the network appears. Click on an item. The selected item is added to the text in the Item text box, and the next sublevel of names appears. If the selected name specifies a system, the list contains names of all of the objects in the system. After selecting an object, the Available Item list box disappears. To leave the Available Item list box after selecting a group or system, either click another area of the dialog box, click OK or Cancel, or press Tab.

   When binding an attribute, type the name of the attribute after the object name, separating the two with a colon (:). For example, the Object AHU2 and the attribute Display would appear in the Item Name field like this:

   ```
   West\2ndFloor\AHU2:DISPLAY.
   ```

   To see a list of available types of attributes, type a question mark (?) after the colon. The Attribute Class box appears in the Bind dialog box. Click on a class to select it, and the Available Selections list box lists the available attributes. Click the desired attribute. It appears in the Item field.

   Note: Fire Object input and output devices can also be specified; however, the devices do not appear in the Available Items box. The names of these devices are available from the Input and Output Device summaries. When indicating a device, precede it with a pound sign (#). For example, an entry might look like this:

   ```
   GRP1\FIRESYS\ZONE:#7BF1.
   ```

8. Specify the text to display in place of the dummy string for the object or attribute by clicking any, all, or none of the check boxes.

   For example, click the Description check box to display the object's 24-character expanded ID next to the symbol of the object. Click Value/Units to display the object's current value. (If analog, the engineering units are also displayed.) The Text options vary depending on the type of object.

9. Specify what the workstation should display when the object's symbol is double-clicked.

   Select Item's Standard Display to display the object's Focus window.

   Note: The PC User Option on the SetUp menu should be set to the To Focus Window option. For more information, refer to the *Using Object Focus Windows* chapter (*LIT-120174*).

   To return to the Network Map after double-clicking the symbol, select Item's Standard Display, and leave the Item text box blank.

   To access another drawing after double-clicking the symbol, click the Other button. Enter the **complete** path and file name of the drawing in the text field. For a list of available drawings, click on the File button. Select the drawing from this list. The path name of the selected drawing appears in the Drawing Name text box.

   Select Neither if nothing should happen when the user double-clicks the object symbol.

10. Click OK.
11. Repeat Steps 8 through 13 until all objects are bound to their object symbols.
12. When finished working with the drawing (including setting colors), save the drawing. On the Item menu, click Save.
13. Close the Binding Editor by double-clicking the Control menu box, or clicking it once and selecting the Close option. The Binding Editor closes.

Setting Colors for a Symbol

To set colors for an object symbol:

1. In the Binding Editor, select the bound object symbol. Handles appear around the selected object symbol.

   Note: The program allows the selection multiple symbols at once. However, doing so means all of the symbols will use the same color for a particular state (for example, all disabled symbols will change to red).

2. On the Action menu, click Set Colors/Test. The Binding Editor-Colors dialog box appears (Figure 19-6).

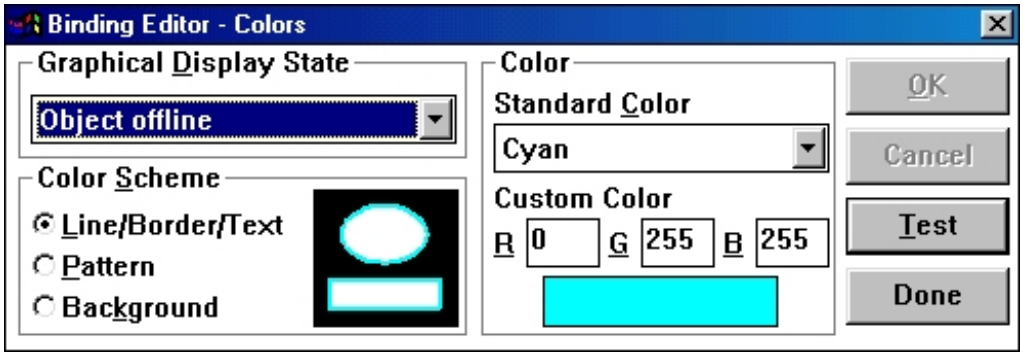

Figure 19-6: Set Colors Dialog Box

3. In the Graphical Display State box, select a state (for example, Offline, Communication Disabled) to assign colors to by clicking the option button.

   Note: Items in the Graphical Display State box vary depending on the type of object.

4. In the Color Scheme box, click the Line/Border/Text radio button and select a color from the Standard Color list box for the lines, border, and text to have in the selected state. For example, click Green. When the object reaches the selected state, the border and text in the object symbol changes to green. Customize the color by changing the color intensity with the R, G, and B settings. For more detailed information, refer to the *Graphics Technical Bulletin (LIT-636108)*.

5. Click the Pattern radio button in the Color Scheme box, and assign a color for the symbol's pattern when the object reaches the selected state. For best results, set the pattern color to As In Static Drawing.

6. Click the Background radio button in the Color Scheme box, and assign a color for the symbol's background when the object reaches the selected state.

7. After specifying the colors for the Lines/Border/Text, Pattern, and Background of the object symbol, click the next state and repeat Step 4 to set its colors. Repeat this process to define colors for all states.

8. Test the colors by selecting a state in the Graphical Display State list box and clicking the Test button. The colors of the symbol appear as they would in the selected state.

9. When finished with the drawing, click Save on the Item menu.

Modifying a Bound Symbol

To modify a bound symbol:

1. In Designer, select the symbol.
2. On the menu, click edit > Symbol ID. The Edit-Symbol ID dialog box appears with the symbol's current name in it. Make note of the symbol name. Click Cancel. The dialog box closes.
3. On the Arrange menu, click Break Apart.
4. Make the necessary changes to the symbol.
5. Recombine the symbol or symbol elements. To do this, refer to Creating Symbols earlier in this section.
6. On the Edit menu, click Symbol ID. The Symbol ID dialog box appears.
7. Assign the original Symbol ID to the symbol. Click OK.

Note: When working with the default symbols in Designer, click the Symbol ID option on the Edit menu to find out the name of the object to which the symbol is bound. The Symbol ID is usually the object name. This is true only for default symbols that have been added and saved via the Binding Editor in the Metasys program.

Deleting a Bound Symbol

To delete a bound symbol:

1. Unbind the symbol from the object.
2. If the object has a graphic symbol number, delete the number. Be sure to change the graphic symbol # in the Focus window to 0.

   Note: This is only necessary if the bound object belongs to this system. If the bound object belongs to another system, this step is not necessary.
3. Access Designer and delete the symbol from the drawing by selecting the symbol and pressing the Delete key.

Modifying the Slide Show Settings

To modify the slide show settings:

1. Select drawings to use in the slide show. These drawings must have been created in Micrografx Designer and have a .DRW extension. The slide show can use the same drawings used to represent the PC groups and systems within the facility. If these drawings are bound to objects through the Graphic Binding process, the slide show displays the dynamic object data.

2. Display the SLIDES.TXT file in any text editor.

   The SLIDES.TXT file is kept in the directory assigned to the GRAPHICSLIBPATH parameter in the METASYS.INI file. The default setting for this parameter is C:\FMS\GRFXLIB. Unless this default setting has changed, the SLIDES.TXT file is in the C:\FMS\GRFXLIB directory.

   For more information on the METASYS.INI file, refer to the *Initialization Parameters Technical Bulletin (LIT-636345)*.

3. Specify the full network\PC group\system name of each drawing in the order in which the drawings should cycle. Start each .DRW file on a separate line.

   For the slide show to display dynamic object data, the system drawing must be in the same directory and have the same name as the system it represents.

   For example, to have the slide show display dynamic data about the AHU1 system in the WEST PC group, specify the full directory path and name of the system drawing.

   The *full* network name is the name assigned to the FMSDATA parameter in the METASYS.INI file combined with the name of the network. The default setting for the FMSDATA parameter is C:\FMS\DATA. If the default has not been changed, and the network name is HDQTRS, the name of the AHU1 system drawing would be as follows:

   ```
   C:\FMS\DATA\HDQTRS\WEST\AHU1\AHU1.DRW
   ```

4. Specify the number of seconds each drawing should remain on the screen before the slide show cycles to the next drawing. Insert a space between the drawing name and the number of seconds.

   The recommended settings are 5 seconds for drawings without dynamic data, and 31 seconds for drawings with dynamic data. The data in a dynamic drawing set for less than 31 seconds is current when the drawing appears on screen; however, it does not refresh.

   To have the slide show to display a particular drawing indefinitely (or until someone attempts to log on), enter 0 for the number of seconds.

   The format of each line, including the full network\PC group\system\drawing name and number of seconds, should be as follows:

   ```
   C:\FMS\DATA\HDQTRS\WEST\AHU1\AHU1.DRW 40
   ```

5. Save the edited SLIDES.TXT file in the text editor.